

**University of Tennessee Board of Trustees**

**July 2000**

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STATE OF TENNESSEE  
**COMPTROLLER OF THE TREASURY**

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John G. Morgan  
Comptroller

July 3, 2000

The Honorable John S. Wilder  
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The Honorable Jimmy Naifeh  
Speaker of the House of Representatives  
The Honorable Tim Burchett, Vice-Chair  
The Honorable Thelma M. Harper, Secretary  
Senate Committee on Government Operations  
The Honorable Mike Kernell, Chair  
House Committee on Government Operations  
and  
Members of the General Assembly  
State Capitol  
Nashville, Tennessee 37243

Ladies and Gentlemen:

Transmitted herewith is the performance audit of the University of Tennessee Board of Trustees. This audit was conducted pursuant to the requirements of Section 4-29-111, *Tennessee Code Annotated*, the Tennessee Governmental Entity Review Law.

This report is intended to aid the Joint Government Operations Committee in its review to determine whether the board should be continued, restructured, or terminated.

Sincerely,

John G. Morgan  
Comptroller of the Treasury

JGM/dlj  
98-054

State of Tennessee

# Audit Highlights

Comptroller of the Treasury

Division of State Audit

Performance Audit  
**University of Tennessee Board of Trustees**  
July 2000

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## AUDIT OBJECTIVES

The objectives of the audit were to review the board's legislative mandate and the extent to which it has carried out that mandate efficiently and effectively; to determine the adequacy of the board's oversight of the University of Tennessee (UT) system's institutions, including the board's success, based on available measures, in ensuring the institutions provide students a quality education; and to make recommendations that might result in more efficient and effective operation of the University of Tennessee system.

## FINDING

### **The UT System Needs to Continue Minority Recruitment Efforts**

UT has not yet attained its goals for enrolling undergraduate minority students at UT-Knoxville and UT-Martin and has not maintained its goal for the Health Sciences Center at Memphis. In addition, a review of campus efforts to recruit minority staff indicates that although UT-Chattanooga has exceeded its goals for hiring administrators, faculty, and professionals, UT-Knoxville has met its goals for faculty only, and UT-Martin has only met its goal for the hiring of professionals. The UT campuses' problems with enrolling and retaining qualified African-American students, faculty, administrators, and professional staff may have a negative effect on the university's ability to serve the educational needs of all Tennesseans (page 33).

## OBSERVATIONS AND COMMENTS

The audit also discusses the following issues: the peer selection process, comparisons of UT campuses to their peer institutions, efforts to improve persistence to graduation rates, remedial and developmental courses, monitoring of sole-source contracts, transferring course credits from community colleges to universities, academic program review, technological advances on campus, and students' use of career services (page 6).

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"Audit Highlights" is a summary of the audit report. To obtain the complete audit report which contains all findings, recommendations, and management comments, please contact

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**Performance Audit**  
**University of Tennessee Board of Trustees**

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# **Performance Audit University of Tennessee Board of Trustees**

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## **INTRODUCTION**

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### **PURPOSE AND AUTHORITY FOR THE AUDIT**

This performance audit of the University of Tennessee Board of Trustees was conducted pursuant to the Tennessee Governmental Entity Review Law, *Tennessee Code Annotated*, Title 4, Chapter 29. Under Section 4-29-221, the University of Tennessee Board of Trustees is scheduled to terminate June 30, 2000. As provided for in Section 4-29-115, however, the board will continue through June 30, 2001, for review by the designated legislative committee. The Comptroller of the Treasury is authorized under Section 4-29-111 to conduct a limited program review audit of the board and to report to the Joint Government Operations Committee. The performance audit is intended to aid the committee in determining whether the University of Tennessee Board of Trustees should be continued, restructured, or terminated.

### **OBJECTIVES OF THE AUDIT**

The objectives of the audit were

1. to determine the authority and responsibilities mandated to the board by the General Assembly and whether the board has carried out these responsibilities efficiently and effectively;
2. to determine the adequacy of the board's oversight of the University of Tennessee system's institutions, including the board's success, based on available measures, in ensuring the institutions provide students a quality education; and
3. to recommend possible alternatives for legislative or administrative action that may result in more efficient and effective operation of the University of Tennessee system.

### **SCOPE AND METHODOLOGY OF THE AUDIT**

The activities of the University of Tennessee Board of Trustees and its related institutions were reviewed for the period January 1998 through September 1999. The audit was conducted in accordance with generally accepted government auditing standards. The methods used included

1. a review of applicable legislation, university policies and procedures, and meeting minutes of various boards and committees associated with the board;
2. attendance at University of Tennessee Board of Trustees meetings and relevant legislative and university committee meetings;
3. examination of the university system's records, files, and reports;
4. interviews with staff at University of Tennessee campuses, the Tennessee Higher Education Commission, Tennessee Board of Regents universities and community colleges, the Office of Research and Education Accountability in the Comptroller's Office, the Southern Regional Education Board, and the 23 institutions designated as "peers" by the University of Tennessee system institutions; and
5. evaluation of financial, staffing, and performance-related information from the University of Tennessee system institutions, Tennessee Board of Regents institutions, Southern Regional Education Board institutions, and institutions designated as "peers" by the University of Tennessee system institutions.

## **ORGANIZATION AND RESPONSIBILITIES**

Title 49, Chapter 9, *Tennessee Code Annotated*, sets forth statutory requirements for the University of Tennessee (UT) system. UT carries out its three principal missions—instruction, research, and public service—through four primary campuses (Knoxville, Chattanooga, Martin, and the Health Science Center in Memphis), three institutes (the Space Institute, the Institute of Agriculture, and the Institute for Public Service), and agricultural and service operations across the state.

The University of Tennessee is governed by the University of Tennessee Board of Trustees. The board is comprised of 20 Governor-appointed members and five *ex officio* members (the Governor, the Commissioners of the Departments of Agriculture and Education, the Executive Director of the Tennessee Higher Education Commission, and the President of the University of Tennessee). The Governor-appointed members consist of the following:

One person from each of the nine congressional districts (for a limited period ending May 31, 2000, an additional member is to be appointed from the eighth district)

Two members from Knox County

Two members from Shelby County

One member from Weakley County

One member from Hamilton County

One member from Davidson County

One member from Anderson, Bedford, Coffee, Franklin, Lincoln, Moore, or Warren County

One past president of the faculty senate (rotates annually among UT institutions)

One student (rotates annually among UT institutions)

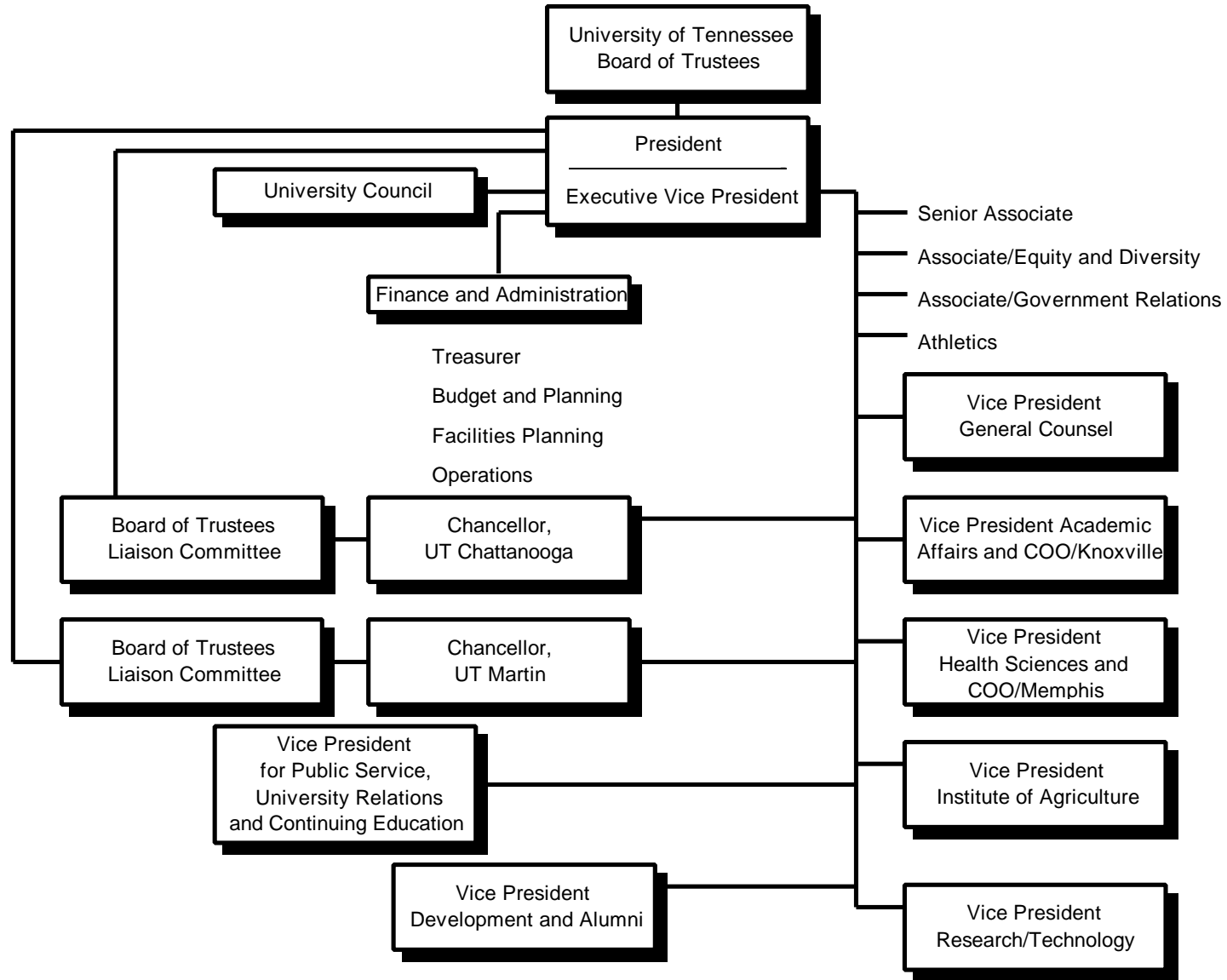
The board has the power to select (and remove) a president, and such professors, tutors, and other officers as they judge necessary; fix and regulate the salaries of those individuals; make bylaws, rules, and regulations for the government of the university and the promotion of education; and confer degrees, in conjunction with the president and professors of the university.

The University of Tennessee–Knoxville serves the state through a broad spectrum of undergraduate, graduate, and professional studies and research. The University of Tennessee–Chattanooga defines itself as a “metropolitan university” dedicated to meeting the general and professional educational needs of area residents, with a wide variety of programs, most focusing on undergraduate education. The University of Tennessee–Martin offers undergraduate degree programs in more than 80 specialized fields of study, as well as selected graduate programs. The Health Science Center in Memphis includes colleges of medicine, dentistry, pharmacy, nursing, and allied health professions.

As the state’s land-grant institution, UT offers specialized agriculture programs through its Institute of Agriculture, which includes the College of Veterinary Medicine, the Agricultural Experiment Station, and the Agricultural Extension Service. The university system also provides graduate study and research in aerospace engineering and related fields at the Space Institute in Tullahoma and assistance to governments, business, and industry through the Institute for Public Service, the Municipal Technical Advisory Service, and the County Technical Assistance Service. The university-wide administration offices, which include the office of the president of the university, as well as the Offices of Business and Finance, Academic Affairs, Alumni Affairs, and Research, are located at the Knoxville campus. (See the organization chart of the UT system’s administration on page 4.) Effective January 1, 2000, administration for the Health Science Center in Memphis and the Space Institute in Tullahoma will be consolidated with UT–Knoxville’s administration. According to UT management, this consolidation will eliminate several administrative positions and help UT save nearly \$1.5 million annually.



# UNIVERSITY OF TENNESSEE



Tables 1 and 2 show the student enrollment, faculty, and staff for the fall 1999 semester at the four UT campuses:

**Table 1**  
**UT System Student Enrollment**  
**Fall 1999**

|                     | <b>UT-<br/>Knoxville</b> | <b>UT-<br/>Chattanooga</b> | <b>UT-<br/>Martin</b> | <b>UT-<br/>Memphis</b> | <b>Total</b>  |
|---------------------|--------------------------|----------------------------|-----------------------|------------------------|---------------|
| Undergraduate       | 20,259                   | 7,216                      | 5,385                 | 244                    | 33,104        |
| Graduate            | 5,457                    | 1,388                      | 356                   | 499                    | 7,700         |
| Law                 | 473                      |                            |                       |                        | 473           |
| Veterinary Medicine | 255                      |                            |                       |                        | 255           |
| Dentistry           |                          |                            |                       | 308                    | 308           |
| Medicine            |                          |                            |                       | 676                    | 676           |
| Pharmacy            |                          |                            |                       | 388                    | 388           |
| <b>Total</b>        | <b>26,444</b>            | <b>8,604</b>               | <b>5,741</b>          | <b>2,115</b>           | <b>42,904</b> |

**Table 2**  
**UT System Faculty and Staff**  
**Fall 1999**

|                                       | <b>Administrators</b> | <b>Faculty</b> | <b>Professionals*</b> | <b>Total</b> |
|---------------------------------------|-----------------------|----------------|-----------------------|--------------|
| UT–Chattanooga                        | 122                   | 327            | 82                    | 531          |
| UT–Knoxville                          | 384                   | 1,122          | 784                   | 2,290        |
| UT–Martin                             | 53                    | 241            | 79                    | 373          |
| UT–Memphis                            | 105                   | 607            | 1,395                 | 2,107        |
| UT Medical Center,<br>Knoxville       | 98                    | 170            | 1,209                 | 1,477        |
| Institute of Agriculture              | 41                    | 272            | 606                   | 919          |
| UWA**/Institute for<br>Public Service | 84                    | 0              | 220                   | 304          |
| <b>Total</b>                          | <b>887</b>            | <b>2,739</b>   | <b>4,375</b>          | <b>8,001</b> |

\* This category includes staff such as librarians, agriculture extension agents, Institute for Public Service consultants, technicians, etc.

\*\* UWA = University-wide administration.

## **REVENUES AND EXPENDITURES**

Revenues and expenditures for the UT system during fiscal year 1999 were approximately \$1.3 billion. (See page 7.) In fiscal year 1999, the largest sources of revenues for the system were auxiliary enterprises (including housing, food services, bookstores, parking authorities, and men's athletics at the Knoxville campus) and hospitals (33 percent), state appropriations (30 percent), and tuition and fees (12 percent). The largest categories of expenditures were auxiliary enterprises and hospitals (33 percent) and instruction (25 percent).

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## **OBSERVATIONS AND COMMENTS**

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The issues discussed below did not warrant findings but are included in this report because of their importance to the operations of the University of Tennessee (UT) system and to the students enrolled at system institutions.

### **UT-SYSTEM PEER INSTITUTIONS AND THE PEER SELECTION PROCESS**

Universities typically choose (or have chosen for them) several "similar" universities, called peer institutions, that can be used for comparisons of various factors such as funding levels, staffing levels, and performance measures. The peer institutions for all public colleges and universities in Tennessee are selected by a peer selection task force under the guidance of the Tennessee Higher Education Commission (THEC). The task force is composed of officials representing THEC, as well as the University of Tennessee system and the Tennessee Board of Regents (TBR). All peer institutions (ten peers for each school) are selected from public universities and colleges in the 16 Southern Regional Education Board (SREB) states, using multiple variables such as number of students (by level), number and percent of different types of programs and degrees awarded, and research expenditures. (In addition to Tennessee, SREB states include Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Texas, Virginia, and West Virginia.) The peers for the UT-system campuses were adopted in 1994; federal data from 1991 and 1992 was used to select peers at that time. (Because of its specialized nature, UT–Memphis does not have a formal list of peer institutions.)

The peer institutions are used in the calculation of instruction and academic support in the state's higher education funding formula. Specifically, data from peer institutions serve as a benchmark to determine the amount of money needed for faculty salaries and for libraries at Tennessee colleges and universities. Because the choice of peers thus affects the rate of public funding to support the state's public colleges and universities, the University of Tennessee and Board of Regents systems may have an incentive to focus on funding implications (rather than education quality issues or overall comparability issues) when selecting peer institutions. For this reason, an August 1997 report by the Comptroller of the Treasury's Office of Research and

The University of Tennessee  
Schedule of Revenues and Expenditures  
For Fiscal Years Ended June 30, 1999, and June 30, 1998

| REVENUES                                     | ACTUAL<br>1998     | PERCENT<br>OF TOTAL | ACTUAL<br>1999     | PERCENT<br>OF TOTAL |
|--|--------------------|---------------------|--------------------|---------------------|
| Tuition and Fees                             | \$ 145,769,441     | 11.83%              | \$ 157,569,886     | 12.09%              |
| Federal Appropriations                       | 13,091,033         | 1.06%               | 13,602,259         | 1.04%               |
| State Appropriations                         | 362,984,833        | 29.46%              | 385,095,981        | 29.55%              |
| Local Appropriations                         | 2,734,554          | 0.22%               | 3,073,655          | 0.24%               |
| Federal Gifts, Grants, and Contracts         | 112,826,285        | 9.16%               | 112,630,077        | 8.64%               |
| State Gifts, Grants, and Contracts           | 21,073,467         | 1.71%               | 25,875,000         | 1.99%               |
| Local Gifts, Grants, and Contracts           | 8,755,664          | 0.71%               | 10,562,909         | 0.81%               |
| Private Gifts, Grants, and Contracts         | 78,752,681         | 6.39%               | 84,101,479         | 6.45%               |
| Endowment Income                             | 13,684,995         | 1.11%               | 16,053,630         | 1.23%               |
| Sales and Services of Educational Activities | 32,901,169         | 2.67%               | 33,087,915         | 2.54%               |
| Other Sources                                | 22,252,244         | 1.81%               | 26,642,626         | 2.04%               |
| Auxiliary Enterprises and Hospitals          | <u>417,189,616</u> | <u>33.86%</u>       | <u>434,774,119</u> | <u>33.37%</u>       |
| TOTAL REVENUES                               | \$1,232,015,982    | 100.00%             | \$1,303,069,536    | 100.00%             |
| EXPENDITURES AND TRANSFERS                   |                    |                     |                    |                     |
| Instruction                                  | \$ 308,069,202     | 25.12%              | \$ 321,966,815     | 24.92%              |
| Research                                     | 125,796,837        | 10.26%              | 135,043,993        | 10.45%              |
| Public Service                               | 92,291,322         | 7.53%               | 98,865,764         | 7.65%               |
| Academic Support                             | 73,183,448         | 5.97%               | 79,620,661         | 6.16%               |
| Student Services                             | 41,080,198         | 3.35%               | 44,890,391         | 3.47%               |
| Institutional Support                        | 57,359,524         | 4.68%               | 61,231,265         | 4.74%               |
| Operation and Maintenance of Plant           | 48,660,118         | 3.97%               | 50,899,277         | 3.94%               |
| Scholarships and Fellowships                 | 47,500,268         | 3.87%               | 51,839,117         | 4.01%               |
| Transfers                                    | 14,246,169         | 1.16%               | 24,176,514         | 1.87%               |
| Auxiliary Enterprises and Hospitals          | <u>418,265,568</u> | <u>34.10%</u>       | <u>423,357,724</u> | <u>32.77%</u>       |
| TOTAL EXPENDITURES AND TRANSFERS             | \$1,226,452,654    | 100.00%             | \$1,291,891,521    | 100.00%             |

Education Accountability suggested that the state consider using an outside organization such as the National Center for Higher Education Management Systems to select peer institutions or have peer selections validated by an impartial entity/consultant.

Because of its increased emphasis on research and graduate education, UT–Knoxville has its own unique peer list, as does the University of Memphis in the Board of Regents system. UT–Knoxville’s peers are as follows:

|   |  |
|---|--|
| University of Florida                     | University of Oklahoma, Norman         |
| University of Georgia                     | University of South Carolina, Columbia |
| University of Kentucky                    | University of Texas, Austin            |
| University of Maryland, College Park      | University of Virginia                 |
| University of North Carolina, Chapel Hill | Virginia Polytechnic Institute         |

Five of the ten peers selected are land-grant institutions—a designation that is a key element of UT–Knoxville’s mission. (Land-grant institutions are those established under the Morrill Acts of 1862 and 1890. The first act authorized the granting of public land to each state, the revenue from which had to be used to support at least one college dedicated primarily to teaching agriculture and mechanical arts. The second act provided for additional annual federal appropriations to support those colleges.) UT–Knoxville’s peer list includes schools of widely varying enrollments (from less than 20,000 students at the University of Virginia to nearly 50,000 students at the University of Texas, Austin) and academic reputations (the Universities of Virginia and North Carolina at Chapel Hill are often ranked in the top five public universities nationwide). (See pages 9-18 for a comparison of UT–Knoxville and its peers, as well as UT–Martin and UT–Chattanooga and their peers, on variables such as faculty salaries, state appropriations, tuition/fees, persistence to graduation rates, and ACT scores of entering freshmen.) Only two of UT–Knoxville’s peers, the University of Georgia and Virginia Tech, chose UT–Knoxville for their own peer lists.

UT–Chattanooga and UT–Martin share seven peers (which are also peers for the five TBR regional universities); in addition, each school has three peers unique to that university. The seven shared peer institutions are as follows:

|  |                                     |
|--|-------------------------------------|
| Appalachian State University, North Carolina | Northern Kentucky University        |
| Florida A&M University                       | Sam Houston State University, Texas |
| Georgia College                              | Southwestern Oklahoma State         |
| Morgan State University, Maryland            |                                     |

UT–Chattanooga’s unique peer institutions are Louisiana Technological University, North Carolina A&T University, and the University of North Florida. UT–Martin’s unique peers are Angelo State University in Texas, the University of North Alabama, and Georgia Southwestern

College. (Effective beginning fall 2000, Georgia Southwestern will be replaced by Christopher Newport University in Virginia as a UT–Martin peer.)

The appropriateness of having all of Tennessee’s regional universities share seven peer institutions is questionable, given the diversity among the universities in terms of enrollment, location, and student demographics. For example, campuses such as UT–Chattanooga, Tennessee State University in Nashville, and Middle Tennessee State University in Murfreesboro, as well as Morgan State University (located in Baltimore, Maryland) and others, are located in metropolitan areas of several hundred thousand people or more, while UT–Martin is located in a rural part of the state, far removed from any large population centers.

## **COMPARISONS OF UT CAMPUSES TO THEIR PEER INSTITUTIONS**

We compared the UT campuses to their peer institutions on several funding-related measures—appropriation per full-time equivalent student (FTE), tuition and fees, and faculty salaries—as well as “quality” measures such as ACT scores of incoming freshmen and persistence to graduation rates. On the funding-related measures, UT–Chattanooga and UT–Martin had tuition and fees above the peer average and faculty salaries and state appropriations per FTE below the peer average. UT–Knoxville was below the peer average for all the funding-related measures. The review of the average ACT scores of incoming freshmen indicated that UT–Martin and UT–Chattanooga ranked near the top in the peer comparison; UT–Knoxville ranked close to the bottom when compared to its peer institutions. See page 13 for the comparison of persistence to graduation rates and a discussion of the UT campuses’ efforts to increase those rates.

### **Funding-Related Measures**

When compared to its ten peer institutions, UT–Knoxville ranked seventh in state appropriation per full-time equivalent (FTE) for academic year 1998-1999; its appropriation per FTE was \$7,162, over 6 percent below the peer average of \$7,657. (See Table 3.) The university ranked eighth in undergraduate tuition and fees—nearly 18 percent below the peer average. In comparing salaries for a full professor, UT–Knoxville ranked last among its peers, with a salary that was \$11,000 (13.6 percent) less than the peer average of \$81,000 and nearly 12 percent, or \$9,200, below the national average.

When compared to its ten peer institutions, the Chattanooga campus ranks ninth in state appropriation per FTE—nearly 21 percent below the peer average of \$6,615 for the 1998-1999 academic year. (See Table 4.) The salary of a full professor at the university is also low compared to its peer institutions—\$56,600 at UT–Chattanooga as compared to a peer average of \$60,200 and a national average of \$63,800. When comparing undergraduate tuition and fees, however, UT–Chattanooga ranked third among its peers, with tuition and fees of \$2,464—more than 9 percent above the peer average.

**Table 3**  
**Appropriations Per FTE, Tuition and Fees, and Faculty Salaries**  
**UT–Knoxville and Peer Institutions**  
**1998-1999 Academic Year**

| <b>Institution</b>                   | <b>Appropriations<br/>Per FTE*</b> |             | <b>Undergraduate<br/>Tuition/Fees**</b> |             | <b>Full Professor's<br/>Salary</b> |             |
|--------------------------------------|------------------------------------|-------------|---|-------------|------------------------------------|-------------|
|                                      | <u>Amount</u>                      | <u>Rank</u> | <u>Amount</u>                           | <u>Rank</u> | <u>Amount</u>                      | <u>Rank</u> |
| University of Florida                | \$8,414                            | 3           | \$2,052                                 | 11          | \$75,000                           | 7           |
| University of Georgia                | \$7,652                            | 6           | \$2,930                                 | 7           | \$80,200                           | 5           |
| University of Kentucky               | \$5,074                            | 11          | \$3,016                                 | 6           | \$73,600                           | 10          |
| Univ. of Maryland, College Park      | \$10,386                           | 2           | \$4,699                                 | 2           | \$83,400                           | 4           |
| Univ. of North Carolina, Chapel Hill | \$10,503                           | 1           | \$2,211                                 | 10          | \$88,700                           | 2           |
| Univ. of Oklahoma, Norman            | \$7,952                            | 5           | \$2,633                                 | 9           | \$74,600                           | 9           |
| Univ. of South Carolina, Columbia    | \$6,703                            | 8           | \$3,630                                 | 4           | \$74,800                           | 8           |
| <b>UT–Knoxville</b>                  | <b>\$7,162</b>                     | <b>7</b>    | <b>\$2,744</b>                          | <b>8</b>    | <b>\$70,100</b>                    | <b>11</b>   |
| University of Texas, Austin          | \$8,315                            | 4           | \$3,064                                 | 5           | \$84,400                           | 3           |
| University of Virginia               | \$5,976                            | 9           | \$4,866                                 | 1           | \$96,500                           | 1           |
| Virginia Polytechnic Institute       | \$5,591                            | 10          | \$4,305                                 | 3           | \$80,100                           | 6           |
| Peer Average (excluding UT–K)        | \$7,657                            |             | \$3,341                                 |             | \$81,100                           |             |
| National average                     |                                    |             |   |             | \$79,300                           |             |

\* FTE = Full-time equivalent (student).

\*\* Fees listed are for in-state students only.

Source: Appropriations and tuition data were provided by the Tennessee Higher Education Commission. Salary information is from the April 23, 1999, issue of *The Chronicle of Higher Education*.

When compared to its ten peer institutions, UT–Martin ranked seventh in state appropriation per FTE for academic year 1998-1999; its appropriation was \$4,549, over 27 percent below the peer average of \$6,256. (See Table 5.) The salary of a full professor at the university is also low compared to its peer institutions—\$54,600 at UT–Martin as compared to a peer average of \$58,533 and a national average of \$63,800. The university ranked second in undergraduate tuition and fees but was less than 3 percent above the peer average. Except for Morgan State, which had substantially higher tuition and fees, there was relatively little difference in tuition and fees among the majority of peer institutions.

**Table 4**  
**Appropriations Per FTE, Tuition and Fees, and Faculty Salaries**  
**UT–Chattanooga and Peer Institutions**  
**Academic Year 1998-1999**

| Institution                   | Appropriations<br>Per FTE* |          | Undergraduate<br>Tuition/Fees** |          | Full Professor's<br>Salary |          |
|-------------------------------|----------------------------|----------|---------------------------------|----------|----------------------------|----------|
|                               | Amount                     | Rank     | Amount                          | Rank     | Amount                     | Rank     |
| Appalachian State University  | \$6,712                    | 6        | \$1,754                         | 11       | \$60,700                   | 4        |
| Florida A&M University        | \$8,263                    | 3        | \$2,233                         | 5        | \$63,300                   | 3        |
| Georgia College               | \$9,814                    | 1        | \$2,136                         | 8        | \$57,900                   | 6        |
| Louisiana Tech University     | \$5,559                    | 8        | \$2,502                         | 2        | \$57,400                   | 7        |
| Morgan State University       | \$7,142                    | 5        | \$3,655                         | 1        | Unavailable                |          |
| North Carolina A&T University | \$8,294                    | 2        | \$1,780                         | 10       | \$63,700                   | 2        |
| Northern Kentucky University  | \$3,185                    | 11       | \$2,264                         | 4        | \$58,900                   | 5        |
| Sam Houston State University  | \$4,175                    | 10       | \$2,204                         | 6        | Unavailable                |          |
| Southwestern Oklahoma State   | \$5,654                    | 7        | \$1,814                         | 9        | \$54,200                   | 9        |
| University of North Florida   | \$7,347                    | 4        | \$2,157                         | 7        | \$65,300                   | 1        |
| <b>UT–Chattanooga</b>         | <b>\$5,232</b>             | <b>9</b> | <b>\$2,464</b>                  | <b>3</b> | <b>\$56,600</b>            | <b>8</b> |
| Peer Average (excluding UT–C) | \$6,615                    |          | \$2,250                         |          | \$60,175                   |          |
| National average              |                            |          |                                 |          | \$63,800                   |          |

\* FTE = Full-time equivalent (student).

\*\* Fees listed are for in-state students only.

Source: Appropriations and tuition data were provided by the Tennessee Higher Education Commission. Salary information is from the April 23, 1999, issue of *The Chronicle of Higher Education*.

At its June 1999 annual meeting, the UT Board of Trustees approved the following student fee increases for 1999-2000:

- Nine percent for Chattanooga and Martin (both in-state and out-of-state)
- Fifteen percent for Knoxville (in-state undergraduate, graduate, and law)
- Twenty percent for Knoxville (out-of-state undergraduate, graduate, and law)
- Fifteen percent for Memphis (in-state undergraduate and graduate)
- Twenty percent for Memphis (out-of-state)
- Fifteen percent for the College of Veterinary Medicine
- Seven percent for the Colleges of Medicine, Dentistry, and Pharmacy

According to the board's minutes, the increases were to be used for faculty and staff salaries, facilities maintenance, libraries, equipment, and operating and program enhancements.



**Table 5**  
**Appropriations Per FTE, Tuition and Fees, and Faculty Salaries**  
**UT–Martin and Peer Institutions**  
**Academic Year 1998-1999**

| <b>Institution</b>            | <b>Appropriations Per FTE*</b> |             | <b>Undergraduate Tuition/Fees**</b> |             | <b>Full Professor's Salary</b> |             |
|-------------------------------|--------------------------------|-------------|-------------------------------------|-------------|--------------------------------|-------------|
|                               | <u>Amount</u>                  | <u>Rank</u> | <u>Amount</u>                       | <u>Rank</u> | <u>Amount</u>                  | <u>Rank</u> |
| Angelo State University       | \$4,400                        | 8           | \$2,242                             | 5           | Unavailable                    |             |
| Appalachian State University  | \$6,712                        | 5           | \$1,754                             | 11          | \$60,700                       | 2           |
| Florida A&M University        | \$8,263                        | 3           | \$2,233                             | 6           | \$63,300                       | 1           |
| Georgia College               | \$9,814                        | 1           | \$2,136                             | 9           | \$57,900                       | 4           |
| Georgia Southwestern College  | \$9,125                        | 2           | \$2,212                             | 7           | Unavailable                    |             |
| Morgan State University       | \$7,142                        | 4           | \$3,655                             | 1           | Unavailable                    |             |
| Northern Kentucky University  | \$3,185                        | 11          | \$2,264                             | 3           | \$58,900                       | 3           |
| Sam Houston State University  | \$4,175                        | 9           | \$2,204                             | 8           | Unavailable                    |             |
| Southwestern Oklahoma State   | \$5,654                        | 6           | \$1,814                             | 10          | \$54,200                       | 7           |
| University of North Alabama   | \$4,088                        | 10          | \$2,256                             | 4           | \$56,200                       | 5           |
| <b>UT–Martin</b>              | <b>\$4,549</b>                 | <b>7</b>    | <b>\$2,342</b>                      | <b>2</b>    | <b>\$54,600</b>                | <b>6</b>    |
| Peer Average (excluding UT–M) | \$6,256                        |             | \$2,277                             |             | \$58,533                       |             |
| National average              |                                |             |                                     |             | \$63,800                       |             |

\* FTE = Full-time equivalent (student).

\*\* Fees listed are for in-state students only.

Source: Appropriations and tuition data were provided by the Tennessee Higher Education Commission. Salary information is from the April 23, 1999, issue of *The Chronicle of Higher Education*.

### ACT Scores for First-Time Entering Freshmen

ACT scores provide an easily available standard measurement of student preparedness for a college career. A review of the average ACT scores of first-time freshmen entering the UT-system schools and their peer institutions in fall 1996, 1997, and 1998, indicated that UT–Martin and UT–Chattanooga compared more favorably to their peers—ranking second or third among 11 institutions—than UT–Knoxville, which ranked ninth or tenth during those three years. (See Tables 6, 7, and 8.)

**Table 6**  
**Average ACT Scores for First-Time Entering Freshmen**  
**UT–Knoxville and Peer Institutions \***

| <b>Institution</b>                | <b>1996</b>  |             | <b>1997</b>  |             | <b>1998</b>  |             |
|-----------------------------------|--------------|-------------|--------------|-------------|--------------|-------------|
|                                   | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> |
| University of Florida             | 27           | 2           | 28           | 2           | 28           | 2           |
| University of Georgia             | 26           | 5           | 26           | 6           | 26           | 6           |
| University of Kentucky            | 25           | 7           | 25           | 7           | 25           | 7           |
| Univ. of Maryland, College Park   | 26           | 5           | 27           | 3           | 27           | 3           |
| Univ. of N. Carolina, Chapel Hill | 27           | 2           | 27           | 3           | 27           | 3           |
| Univ. of Oklahoma, Norman         | 24           | 9           | 25           | 7           | 24           | 9           |
| Univ. of South Carolina, Columbia | 23           | 11          | 22           | 11          | 22           | 11          |
| <b>UT–Knoxville</b>               | <b>24</b>    | <b>9</b>    | <b>24</b>    | <b>10</b>   | <b>24</b>    | <b>9</b>    |
| University of Texas, Austin       | 27           | 2           | 27           | 3           | 27           | 3           |
| University of Virginia            | 29           | 1           | 29           | 1           | 29           | 1           |
| Virginia Polytechnic Institute    | 25           | 7           | 25           | 7           | 25           | 7           |
| Peer Average (excluding UT–K)     | 26           |             | 26           |             | 26           |             |

\* Several of the peer institutions report only average SAT scores. These scores were converted to their corresponding ACT equivalents using a table produced by ACT, Incorporated.

## **UT EFFORTS TO IMPROVE PERSISTENCE TO GRADUATION RATES**

Persistence to graduation rates measure the rate at which full-time freshmen entering a university in a given year graduate within a six-year period. It appears that the UT-system universities are making reasonable efforts to improve persistence to graduation rates. However, there is clearly room for improvement—UT–Martin’s persistence to graduation rate has declined rather than increased in recent years, and UT–Knoxville ranked below most of its peer institutions in this category.

A comparison of persistence to graduation rates for the UT campuses and their peer institutions indicates that both UT–Chattanooga and UT–Martin compare more favorably against their peer institutions than UT–Knoxville. (See Tables 9, 10, and 11.) For the three six-year periods reviewed (1990-1996, 1991-1997, and 1992-1998), UT–Martin ranked second, fourth, and third, respectively. UT–Chattanooga ranked third for each of the three periods. (Information was unavailable for some institutions.) UT–Knoxville, however, ranked ninth, eighth, and eighth, respectively, when compared to its ten peers.

**Table 7**  
**Average ACT Scores for First-Time Entering Freshmen**  
**UT–Chattanooga and Peer Institutions**

| <b>Institution</b>            | <b>1996</b>  |             | <b>1997</b>  |             | <b>1998</b>  |             |
|-------------------------------|--------------|-------------|--------------|-------------|--------------|-------------|
|                               | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> |
| Appalachian State             | 22.0         | 2           | 21.0         | 4           | 22.0         | 3           |
| Florida A&M                   | 20.0         | 7           | 19.0         | 10          | 19.0         | 10          |
| Georgia College               | 19.4         | 10          | 19.3         | 9           | 19.5         | 9           |
| Louisiana Tech                | 22.4         | 1           | 22.5         | 1           | 22.2         | 1           |
| Morgan State                  | 20.0         | 7           | 20.0         | 6           | 20.0         | 7           |
| North Carolina A&T            | 16.0         | 11          | 16.0         | 11          | 17.0         | 11          |
| University of North Florida   | 21.1         | 4           | 21.9         | 3           | 21.9         | 4           |
| Northern Kentucky University  | 20.4         | 6           | 19.9         | 8           | 20.1         | 6           |
| Sam Houston State             | 20.0         | 7           | 20.0         | 6           | 20.0         | 7           |
| Southwest Oklahoma State      | 21.0         | 5           | 21.0         | 4           | 21.0         | 5           |
| <b>UT–Chattanooga</b>         | <b>21.9</b>  | <b>3</b>    | <b>22.0</b>  | <b>2</b>    | <b>22.1</b>  | <b>2</b>    |
| Peer Average (excluding UT–C) | 20.2         |             | 20.1         |             | 20.3         |             |

**Table 8**  
**Average ACT Scores for First-Time Entering Freshmen**  
**UT–Martin and Peer Institutions**

| <b>Institution</b>            | <b>1996</b>  |             | <b>1997</b>  |             | <b>1998</b>  |             |
|-------------------------------|--------------|-------------|--------------|-------------|--------------|-------------|
|                               | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> | <u>Score</u> | <u>Rank</u> |
| Angelo State                  | 21.0         | 4           | 21.0         | 4           | 21.0         | 4           |
| Appalachian State             | 22.0         | 2           | 21.0         | 4           | 22.0         | 2           |
| Florida A&M                   | 20.0         | 8           | 19.0         | 11          | 19.0         | 11          |
| Georgia College               | 19.4         | 11          | 19.3         | 10          | 19.5         | 10          |
| Georgia Southwest College     | 23.0         | 1           | 23.0         | 1           | 23.0         | 1           |
| Morgan State                  | 20.0         | 8           | 20.0         | 7           | 20.0         | 8           |
| University of North Alabama   | 20.9         | 6           | 21.2         | 2           | 20.6         | 6           |
| Northern Kentucky University  | 20.4         | 7           | 19.9         | 9           | 20.1         | 7           |
| Sam Houston State             | 20.0         | 8           | 20.0         | 7           | 20.0         | 8           |
| Southwest Oklahoma State      | 21.0         | 4           | 21.0         | 4           | 21.0         | 4           |
| <b>UT–Martin</b>              | <b>21.1</b>  | <b>3</b>    | <b>21.2</b>  | <b>2</b>    | <b>21.2</b>  | <b>3</b>    |
| Peer Average (excluding UT–M) | 20.8         |             | 20.5         |             | 20.6         |             |

Auditors interviewed Academic Affairs administrators at UT–Knoxville, UT–Chattanooga, and UT–Martin to identify efforts to improve persistence.

UT–Knoxville. According to university administrators, 25 percent of students graduate in four years or less, a percentage that they believe should be higher. However, they also stated that persistence goals are elusive because of the dwindling numbers of students in the 18 to 20 year age range, as larger numbers of students drop out and return later. Also, an increasing number of students are working and taking smaller course loads. In an effort to retain students, UT–Knoxville instituted a first-year studies program. The two-credit-hour course is recommended for at-risk students, particularly those with low ACT scores and high school GPAs. The course focuses on needed skills such as use of the library and Internet services.

**Table 9**  
**Persistence to Graduation**  
**Full-time Freshmen Entering Academic Years 1990-1992**  
**UT–Knoxville and Peer Institutions**

| <b>Institution</b>                   | <b>1990-1996</b> |             | <b>1991-1997</b> |             | <b>1992-1998</b> |             |
|--------------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|
|                                      | <u>Percent</u>   | <u>Rank</u> | <u>Percent</u>   | <u>Rank</u> | <u>Percent</u>   | <u>Rank</u> |
| University of Florida                | 63.0 %           | 6           | 64.0%            | 5           | 67.0%            | 4           |
| University of Georgia                | 62.0%            | 7           | 62.3%            | 7           | 63.7%            | 7           |
| University of Kentucky               | 48.4%            | 10          | 48.4%            | 10          | 50.8%            | 10          |
| University of Maryland, College Park | 60.9%            | 8           | 62.9%            | 6           | 63.9%            | 6           |
| Univ. of North Carolina, Chapel Hill | 82.5%            | 2           | 84.4%            | 2           | 82.2%            | 2           |
| University of Oklahoma, Norman       | 44.0%            | 11          | 45.1%            | 11          | 45.4%            | 11          |
| Univ. of South Carolina, Columbia    | 63.3%            | 5           | 56.1%            | 9           | 55.7%            | 9           |
| <b>UT–Knoxville</b>                  | <b>58.4%</b>     | <b>9</b>    | <b>59.1%</b>     | <b>8</b>    | <b>59.2%</b>     | <b>8</b>    |
| University of Texas, Austin          | 63.4%            | 4           | 64.6%            | 4           | 66.5%            | 5           |
| University of Virginia               | 91.4%            | 1           | 91.5%            | 1           | 92.0%            | 1           |
| Virginia Polytechnic Institute       | 73.1%            | 3           | 73.6%            | 3           | 72.0%            | 3           |
| Peer Average (excluding UT–K)        | 65.2%            |             | 65.3%            |             | 65.9%            |             |

As a major initiative to enroll better students and improve persistence, UT–Knoxville has approved a new admissions policy effective fall semester 2001. (Current minimum enrollment requirements are achievement of a 2.75 high school GPA, an overall score of 18 on the ACT, and completion of 14 college preparatory courses in high school.) The new policy will consider ACT scores and GPA, but will also place more emphasis on the completion of honors courses in high school, community leadership and involvement, letters of recommendation, and a written essay. Also, the policy will move the application deadline from June 1 back to January 15. Administrators believe the new policy will challenge students to take more rigorous courses, beginning in the ninth grade. Administrators also believe that within ten years, this policy will have a major impact on persistence rates.

**Table 10**  
**Persistence to Graduation**  
**Full-time Freshmen Entering Academic Years 1990-1992**  
**UT–Martin and Peer Institutions**

| <b>Institution</b>            | <b>1990-1996</b> |             | <b>1991-1997</b> |             | <b>1992-1998</b> |             |
|-------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|
|                               | <u>Percent</u>   | <u>Rank</u> | <u>Percent</u>   | <u>Rank</u> | <u>Percent</u>   | <u>Rank</u> |
| Angelo State                  | Unavailable      |             | Unavailable      |             | Unavailable      |             |
| Appalachian State             | 63.4%            | 1           | 62.6%            | 1           | 62.1%            | 1           |
| Florida A&M                   | 43.0%            | 3           | 44.5%            | 2           | 47.1%            | 2           |
| Georgia College               | 42.0%            | 4           | 42.0%            | 3           | Unavailable      |             |
| Georgia Southwest College     | 28.3%            | 8           | 22.6%            | 9           | 23.2%            | 8           |
| Morgan State                  | 31.8%            | 7           | 36.3%            | 6           | Unavailable      |             |
| University of North Alabama*  | 32.8%            | 5           | 30.2%            | 7           | 40.6%            | 4           |
| Northern Kentucky University  | Unavailable      |             | 24.3%            | 8           | 24.7%            | 7           |
| Sam Houston State             | 32.5%            | 6           | 37.7%            | 5           | 39.2%            | 5           |
| Southwest Oklahoma State      | Unavailable      |             | Unavailable      |             | 30.8%            | 6           |
| <b>UT–Martin</b>              | <b>43.9%</b>     | <b>2</b>    | <b>41.2%</b>     | <b>4</b>    | <b>40.8%</b>     | <b>3</b>    |
| Peer Average (excluding UT–M) | 39.1%            |             | 37.5%            |             | 38.2%            |             |

\* The 1990-1996 and the 1991-1997 rates are for both full- and part-time students; the 1992-1998 rate is for full-time students only.

UT–Knoxville also addresses persistence rates with the annual Freshmen Performance Reports that are maintained and sent to every high school in Tennessee that sends at least three students to the university. The reports, which are sent in January, compare how well students did in high school math and English courses with how well they did in comparable college courses. Administrators believe the reports can assist high schools in preparing students for academic courses and improve the quality of enrolling students, thereby enhancing persistence.

Students changing majors can also add to the number of years it takes them to graduate. In response, UT–Knoxville is examining ways to increase flexibility to limit the number of extra classes that are required when a student changes majors. However, because of accreditation requirements, there will be limits as to what is possible. Another possibility being discussed is the implementation of a policy that would require students to make rigorous progress towards completion of a degree. For example, after 30 hours, a student would have to demonstrate good academic standing, have declared a major, and have completed general education requirements, or the student would face academic probation.

**Table 11**  
**Persistence to Graduation**  
**Full-time Freshmen Entering Academic Years 1990-1992**  
**UT–Chattanooga and Peer Institutions**

| <b>Institution</b>            | <b>1990-1996</b> |             | <b>1991-1997</b> |             | <b>1992-1998</b> |             |
|-------------------------------|------------------|-------------|------------------|-------------|------------------|-------------|
|                               | <u>Percent</u>   | <u>Rank</u> | <u>Percent</u>   | <u>Rank</u> | <u>Percent</u>   | <u>Rank</u> |
| Appalachian State             | 63.4%            | 1           | 62.6%            | 1           | 62.1%            | 1           |
| Florida A&M                   | 43.0%            | 4           | 44.5%            | 4           | 47.1%            | 2           |
| Georgia College               | 42.0%            | 5           | 42.0%            | 5           | Unavailable      |             |
| Louisiana Tech                | 39.0%            | 6           | 45.0%            | 2           | 43.0%            | 4           |
| Morgan State                  | 31.8%            | 8           | 36.3%            | 8           | Unavailable      |             |
| North Carolina A&T            | 27.0%            | 9           | 31.1%            | 9           | 32.2%            | 7           |
| University of North Florida   | 47.2%            | 2           | 37.1%            | 7           | 34.6%            | 6           |
| Northern Kentucky University  | Unavailable      |             | 24.3%            | 10          | 24.7%            | 9           |
| Sam Houston State             | 32.5%            | 7           | 37.7%            | 6           | 39.2%            | 5           |
| Southwest Oklahoma State      | Unavailable      |             | Unavailable      |             | 30.8%            | 8           |
| <b>UT–Chattanooga</b>         | <b>44.5%</b>     | <b>3</b>    | <b>44.6%</b>     | <b>3</b>    | <b>46.5%</b>     | <b>3</b>    |
| Peer Average (excluding UT–C) | 40.7%            |             | 40.1%            |             | 39.2%            |             |

UT–Chattanooga. According to UT–Chattanooga administrators, in order to improve persistence rates, the university is focusing on better screening of prospective students, improving initial assignment of advisors for at-risk students, better preparing advisors, and clustering students in general education classes. Clustering involves assigning groups of students to two or more of the same general education classes, with the hope that the students will bond and form relationships, thereby increasing the chances they will remain in school and graduate at a faster rate.

An additional experiment implemented during the fall 1999 semester is a restructure of the developmental math program in an attempt to focus courses on the needs of students in their areas of study. Other efforts include improving tutorial services.

UT–Martin. UT–Martin administrators believe that students are not as prepared as they should be upon entering the university. In an effort to retain freshman students, the Student Academic Support Center has been reorganized to increase efforts for at-risk students. Efforts have also been made to increase and improve advising/counseling services, for example, implementation of a faculty workshop for counselors in the freshman program.

Effective in fall 1998, UT–Martin revised its policy concerning developmental courses. Previously, only students who did not meet minimum ACT scores and GPA requirements (and thus were enrolled as qualified, or at-risk, admissions) were required to take such courses. The courses were optional for regular admission enrollees who met ACT and GPA standards but were identified as needing developmental courses. Under the new policy, those regular admission students identified as “in-need” are required to take the courses. Administrators believe that this policy change was responsible for the drop in the percentage of first-time, full-time freshmen who were placed on academic probation, from 32.4 percent in the fall 1997 semester to 26.0 percent in the fall 1998 semester.

The university has also redefined the freshman studies program by increasing the numbers of generic courses required in various academic sections. All students grouped within individual majors must meet these specific requirements.

## **REMEDIAL AND DEVELOPMENTAL COURSES**

Each campus within the University of Tennessee system has programs designed to aid students identified as at-risk for failing their college courses or dropping out of school. Most of these programs are aimed at first-time freshmen, the group most likely to withdraw from college. According to guidelines supplied by the state Department of Education, remedial courses are designed for students who lack the basic ability to write complete sentences, basic reading comprehension, and basic computational arithmetic. Developmental courses are intended for those students who possess basic remedial skills but lack the ability to write coherent paragraphs and perform algebraic computations. The Southern Regional Education Board, of which Tennessee is a member, reported that remedial courses are prescribed for students who did not complete a rigorous college preparatory curriculum; those who completed a college preparatory curriculum but made low grades; or those who did not take a unit of mathematics during their senior year in high school.

According to university officials, however, the UT system does not offer remedial courses structured to address deficiencies in a student’s secondary level preparation. The UT system has taken the position that those students in need of remedial coursework are better served by enrolling in one of the state’s community colleges to improve their skills, and later applying to a UT campus once they have successfully completed their remedial classes at the community college level. Instead, UT campuses offer developmental classes designed to supplement the coursework taken by a student during high school.

Programs for at-risk students at the three undergraduate campuses include the following:

UT–Chattanooga. The university has a developmental studies program which offers classes in reading, elementary and intermediate algebra, writing, and effective study skills, as well as study skills laboratories in psychology, human perspectives, and sociology. In addition, UT–Chattanooga offers a freshman seminar program; academic support services

for eligible students; support services for students with disabilities and for nontraditional students; and a variety of tutoring, mentoring, and counseling/advising services.

UT–Knoxville. The university offers only one developmental course (intermediate algebra) but also offers an algebra workshop and two writing workshops as a supplement to students' regular classes. Other programs offered include the educational advancement program, which provides counseling, academic advising, instructional, tutorial, and mentoring services to at-risk students; the first year studies program, which is available to all entering students and focuses on topics such as orientation to university resources, time management, study skills, and academic planning; and three living-learning programs to address the needs of freshmen who may be at risk for nonacademic reasons. The university also has initiatives to assist minority students and students in academic difficulty.

UT–Martin. The university offers two developmental English courses, two developmental math courses, a reading course, and a study skills class. UT–Martin also offers a freshman studies program (focusing on topics such as time management, study skills, and academic planning) and provides a variety of counseling, advising, and tutoring services through its Student Academic Support Center.

All three campuses use the placement scores of new undergraduate students to identify those who will be required to enroll in developmental courses and participate in other programs designed to enhance their academic skills. Students are identified as potential candidates for developmental instruction based on a score of 18 or below on any section of the ACT. Developmental courses do not count toward the total number of hours required for graduation, nor do they fulfill any requirement in specific areas of study. The percentage of first-time freshmen taking at least one developmental course, however, varies substantially among the campuses, from 42.0 percent at UT–Martin and 30.4 percent at UT–Chattanooga for the fall 1998 semester, to only 4.1 percent at UT–Knoxville. The percentages drop for all three universities when only first-time freshmen 18 years of age or younger are considered—37.5 percent of these students were enrolled in at least one developmental course during the fall 1998 semester at UT–Martin, as compared to 27.7 percent at UT–Chattanooga and 3.9 percent at UT–Knoxville.

## **UT'S ACTIONS TO ADDRESS CONCERNS REGARDING THE MONITORING OF SOLE-SOURCE CONTRACTS**

The Division of State Audit's financial and compliance audit of the University of Tennessee system for fiscal year 1998 found weaknesses in the approval process for sole-source contracts. These weaknesses (and similar problems identified by contract review staff in the Comptroller's Office) led to concerns about university management's ability to ensure that contracts are secured in the most competitive and efficient manner. In response, UT administrators took several actions, including reviewing policies and practices and revising procedures and policies accordingly. The actions taken appear reasonable.



Pursuant to Section 12-3-103, *Tennessee Code Annotated*, purchases by the University of Tennessee institutions are exempt from state purchasing requirements. According to management in the Department of Finance and Administration's Office of Contract Administration, Finance and Administration rules allow universities in the UT system to either follow state purchasing policies or develop their own. If the universities choose to develop their own policies, the policies must effectuate those of Finance and Administration.

Finance and Administration policies allow sole-source procurement only when it's not feasible or practical to solicit competitive bidding. The policy on Personal, Professional and Consultant Service Contracts, Sole Source Negotiations, allows the negotiation of a contract with a single vendor when the service required is available from only one person or firm, or when the contract is with another governmental unit or state agency.

UT has developed its own policies. However, according to management in UT-Knoxville's Research Office and the Audit and Management Services Division, and a review of the state's contracting policies, the system's policies are to conform with the policies already established by the state.

The University of Tennessee, Fiscal Policy Statement 05, Section 130, Part 03, B. Non-Competitive Contracting (in effect at the time the UT-Knoxville/IBM contract discussed below was initiated and approved) allows the university to enter into a noncompetitive contract with a vendor or firm when the cost of the services exceeds \$1,000 and meets one or more of the following conditions:

- when only one product or service can meet the specific need and the product or service is available from only one source;
- when the contract is with another governmental agency;
- when urgent need prevents competitive methods.

By policy, the university department soliciting the service will negotiate and develop a contract with the vendor or firm and submit the proposal to the campus contract office along with documentation to justify sole-source status. The contract office in turn must certify the contract meets sole-source criteria prior to approval. UT policy requires that all contracts be reviewed before being executed. The term "contract office" is generic in nature; the actual office responsible for review depends on the type of contract. The UT-Knoxville/IBM contract was for research purposes and thus should have been reviewed by the Research Office.

Prior to June 15, 1999, the campus contract office was solely responsible for reviewing sole-source requests and determining whether the contract proposal met sole-source criteria. However, the policy did not provide guidelines as to how the university department should indicate a sole-source contract was justified. Internal Audit management at UT-Knoxville believes this policy was weak in that it lacked an adequate mechanism for the university department to justify sole-source criteria.

## UT–Knoxville/Department of Human Services Contract

The UT–Knoxville College of Social Work and the Department of Human Services have had a long-standing working relationship for approximately 20 years, during which UT–Knoxville has provided research, training, technical assistance, and evaluative procedures in areas where Human Services was not adequately staffed. There has been a continuation of work over several years, with contracts negotiated annually. Some aspects of each new contract will merely be a continuation of work already in progress, while others will be for new services or projects. Negotiations for the 1997-98 contract began on May 16, 1997, and the contract for work to be started July 1, 1997, was approved June 30, 1997.

Services in the 1997-98 contract included assistance in the development of a performance-based contracting process for providing certain welfare services. UT–Knoxville had provided similar services to Human Services in the past, but in this case university staff believed they lacked the necessary expertise to fulfill the demands of the contract. According to Internal Audit and College of Social Work management, discussions were held at the time of contract negotiation, regarding the use of an IBM consultant. Human Services staff mentioned an IBM consultant who had worked with the department on projects for 10 to 15 years, whom they believed had the needed experience to fulfill the contract needs. However, no decision was made at that time to use the IBM consultant. Instead, a decision was made to go ahead with the contract because of the need to get the contract approval process moving; the contract could then be amended if a decision was made later to use the IBM consultant.

After the primary contract was implemented, a decision was made to secure the services of the IBM consultant. College of Social Work management, believing the IBM consultant was the only individual with the needed expertise, submitted the IBM sole-source subcontract request to the Research Office for approval on October 17, 1997. According to UT Internal Audit management, the college provided adequate documentation of why the IBM consultant was the most qualified vendor to meet the contract needs. However, it did not provide justification that IBM was the only vendor who could meet these needs. Despite the lack of adequate justification for sole-source procurement, the IBM subcontract was approved October 24, 1997.

The amendment to the original contract, committing Human Services to pay for the IBM consultant's services, was not approved by the Research Office until December 12, 1997, two months after being submitted on October 9, 1997, and nearly two months after the consultant began work during the week of October 13-17, 1997. By authorizing the subcontract prior to the amendment approval, UT–Knoxville was in effect authorizing payment to IBM before approval of the contract that committed Human Services to pay for these services.

## UT Internal Audit

In response to issues raised by the State Comptroller's office, UT's Internal Audit division conducted a review of UT–Knoxville's policies and practices regarding sole-source procurement. The internal audit reviewed the UT system-wide sole-source procurement policies and practices, focusing on the Knoxville campus. A report released August 26, 1998, found that UT–

Knoxville's policies and practices were generally sound, but the report included recommendations "to clarify purchasing and contracting policies and to improve the documentation of non-competitive purchases." However, based on comments from Internal Audit management and our analysis of the review, it appears the policies and practices were weak and in need of improvement.

The internal audit found that UT–Knoxville's purchasing and contracting policies did not give university departments sufficient guidance on when to procure goods on a sole-source basis as opposed to procuring them by competitive bidding. The report also recommended that criteria for procuring goods and services noncompetitively should be consolidated and revised, and that a form for documenting the justification for noncompetitive purchases be developed.

The internal audit review of sole-source contracts concluded that often there was no readily available documentation to determine whether competitive methods were used or whether noncompetitive methods were justified. Often there was no documentation to explain why competitive methods were not used, and contract office personnel did not always document their approval of the sole-source procurement method as required.

#### New UT Purchasing Policy

As a result of the 1998 internal audit, UT has issued a revised fiscal policy on contracting, specifically sole-source procurements. The new policy, effective June 15, 1999, requires the university department submitting the proposal to include a standardized form to check off applicable reasons as to why a sole-source authorization should be given. For example, if only one product or service could meet the specific needs, that would be indicated on the form. This form must be included with all authorization requests.

The policy also changes the review process. For nonprocurement contracting such as the IBM contract, the contract office will certify that the contract meets the sole-source criteria. If the contract is for an amount greater than \$50,000, the request must be approved by both the contract office and the university Purchasing Director. As an additional level of monitoring, the contract office or the Purchasing Department must quarterly submit all sole-source requests to UT Audit and Management Services for review.

### **TRANSFERRING COURSE CREDITS FROM COMMUNITY COLLEGES TO UNIVERSITIES**

Universities and community colleges develop articulation agreements and transfer equivalency tables to facilitate and to set forth the parameters for the transfer of community college course credits when students transfer to the university. Such prior arrangements are necessary because difficulties in transferring credits may force students to unnecessarily retake courses, resulting in increased costs to students, parents, and the state. In general, Tennessee's community colleges appear to have positive working relationships with the UT-system universities regarding articulation agreements and communication of policies. The articulation agreements and equivalency tables we reviewed seemed comprehensive and adequate to address transferring

credits. In addition, when problems arose (as happened recently between UT–Chattanooga and its area community colleges), university faculty and administrators took reasonable actions to address the community colleges’ concerns.

UT-system universities have developed transfer articulation agreements with some of the community colleges in Tennessee. Using the agreements, students can take community college courses that are in effect identical to courses they would take at the university, and upon receiving their associate’s degree, can transfer with junior standing in that major or program. A student must have completed a minimum of 12 hours at the prior school to be considered a transfer student. Otherwise, the student is considered a first-time freshman.

In determining whether to establish agreements with community colleges, an administrator from the Academic Affairs office reviews the course equivalency tables from the community college to determine whether there are sufficient course offerings for a student to attend the community college for two years and have all courses transfer to UT for credit. If sufficient offerings exist, a formal articulation agreement is developed. However, UT-system universities typically develop formal articulation agreements only with those community colleges that annually provide the largest numbers of transfer students. According to UT administrators, the universities don’t have the resources or time to develop formal agreements with the remaining schools, some of which may only send two students per year.

For community colleges that don’t have formal articulation agreements, transfer equivalency tables (which list courses that are equivalent to UT courses and, therefore, will transfer) are used. These tables are developed over time through UT Admissions staff’s review of a course catalog description and syllabus and discussions among staff in the appropriate UT department (e.g., history, accounting, mathematics). According to UT administrators, the review process using equivalency tables can be very time consuming.

Auditors reviewed articulation agreements and transfer equivalency tables and contacted administrators at UT–Knoxville, UT–Chattanooga, and UT–Martin to identify articulation agreements and to determine how these policies are communicated to students and the community colleges.

UT–Knoxville. UT–Knoxville has formal articulation agreements with five community colleges in Tennessee—Chattanooga State, Cleveland State, Pellissippi State (Knoxville), Roane State (Harriman), and Walters State (Morristown). These five schools sent 84 percent (466) of the 552 transfer students entering UT–Knoxville in the fall 1998 semester. The university has developed transfer equivalency tables for the remaining nine community colleges in the state.

According to Academic Affairs administration, they meet periodically with community college Academic Affairs offices to communicate agreements and changes in policy. Input from the community colleges is solicited prior to any changes.

UT–Chattanooga. UT–Chattanooga has formal articulation agreements with Chattanooga State and Cleveland State, which provided 82 percent (292) of the 356 transfer students enrolling at the university in the fall 1998 semester. In addition, the university has developed course equivalency tables with the remaining community colleges.

According to UT–Chattanooga administrators, they periodically discuss articulation issues with staff from Chattanooga State and Cleveland State, and to a lesser extent, Motlow State (Lynchburg). In addition, university recruiters periodically meet with prospective students on community college campuses to discuss issues, including the transfer of coursework.

UT–Martin. UT–Martin has formal articulation agreements with Dyersburg State and Jackson State, which provided 68 percent (194) of the university’s 286 transfer students in the fall 1998 semester. Transfer equivalency tables have been developed for the remaining state community colleges.

According to administration, UT–Martin updates its articulation agreements annually. In addition, the university brings community college administrators on campus annually to discuss articulation issues and policies. However, neither of these activities occurred during the 1998-99 academic year because of a change in the vice-chancellor position.

Auditors also contacted Academic Affairs offices at the following six community colleges to determine if staff in those offices believe that the UT-system universities are effectively communicating articulation agreements and policies:

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Chattanooga State Community College | Nashville State Technical Institute |
| Cleveland State Community College   | Pellissippi State Community College |
| Jackson State Community College     | Walters State Community College     |

Those interviewed reported good working relationships with the UT-system universities concerning articulation agreements. In addition, they stated that, in general, the UT staff effectively communicate articulation policy and changes to their schools, and usually solicit their input regarding any changes.

There have, however, been some articulation-related problems between UT–Chattanooga and its area community colleges. The university has not updated its course-by-course equivalency tables in a timely manner. For example, the tables for both Chattanooga State and Cleveland State have not been updated since 1997. Administrators at Cleveland State believe the outdated tables don’t suit the needs of their students. According to UT–Chattanooga administration, as of September 1999, the tables were in the process of being updated.

The community colleges' major concern is UT–Chattanooga's recent decision to increase the general education core hour requirement. During the 1999 spring semester, the university's General Education Committee recommended establishing a 40-hour core course curriculum and a minimum number of proficiency hours to demonstrate basic computer literacy and oral and written communication skills. According to university administrators, this decision (which increased the general education core hour requirement from 30 to 50 hours) was made for two primary reasons. First, both university faculty and the Southern Association of Colleges and Schools accrediting body had expressed concerns that the original number of hours (30) was at a minimum level and should be increased. Also, local employers had commented that university graduates exhibited weaknesses in the areas of computer literacy and communication, both oral and written.

Chattanooga State administrators believe the increase in hours is reasonable; however, their counterparts at Cleveland State question if students will be able to take 50 hours of general education courses and still receive an associate's degree within two years. Both schools expressed concerns about the lack of information they had received from UT–Chattanooga and the lack of sufficient time to make the adjustments needed. Administrators were also concerned by a change allowing individual university programs, such as chemistry, to develop individual program-specific general education courses in areas such as writing and computer literacy. These courses may not be easily transferable and also may not meet overall general education requirements, thus potentially posing a hardship on students who change majors.

In spring 1999, UT–Chattanooga notified the community colleges that the changes would be effective for students enrolling in the fall 1999 semester, despite the fact the policy was not formalized in time to have the changes included in the 1999-2000 student catalog. The community colleges were informed the program requirements would be listed in the 2000-01 catalog but would be retroactive to students enrolling in the prior year, 1999-2000. Because of concerns that they did not have sufficient time to prepare for these changes or to discuss the changes (and their ramifications) with students, the community colleges proposed a "grandfather" policy exemption that would allow all students transferring to the university through the 2001 summer semester to use the 1998 catalog requirements, if they choose to do so. This would give the community colleges time to update articulation policies, modify courses and course requirements as needed, and communicate changes to and advise students. The UT–Chattanooga faculty council approved this proposal in September 1999. The new policy also addresses community colleges' concerns regarding the development of major-specific course requirements. According to university administration, as long as a community college transferring course meets the university's guideline "in spirit," it will meet the UT–Chattanooga course requirement and will be honored.

The UT-system universities should continue efforts to solicit input from Tennessee's community colleges during the development of articulation agreements and policies, and effectively communicate these policies to the schools in order to facilitate transfer of community college course credits.

## ACADEMIC PROGRAM REVIEW

Academic program reviews are intended to improve the quality of the university's academic offerings, to achieve the best use of available resources, and to foster cooperation among academic and administrative units. Based on a review of the reports submitted by the university, it appears that University of Tennessee campuses are regularly engaging in substantive reviews of their academic programs, proceeding along established guidelines, and continually assessing the need for various programs.

The university initiated academic program reviews for doctoral programs in 1974; the reviews were expanded to include master's and baccalaureate programs in 1979. These reviews serve as a means to evaluate quality, productivity, need, and demand within the university, state, and region; to determine effectiveness and consider possible modifications; and to facilitate academic planning and budgeting. Both internal and external reviewers, including faculty, administrators, and related professionals, provide varying perspectives on the strengths and weaknesses of particular programs. Academic program reviews are also part of the performance funding process, which rewards those public higher education institutions that do well according to indicators established by representatives of the institutions, the governing boards, and the Tennessee Higher Education Commission. Performance funding scores are used to determine 5.45 percent of total state support. Many of the standards devised to evaluate the quality of academic programs and measure the satisfaction of enrolled students and recent graduates are also used in the performance funding process.

A review of the UT system's academic program inventory indicates that, for academic year 1999-2000, the system had a total of 404 programs:

73 programs at UT–Chattanooga

228 programs at UT–Knoxville

70 programs at UT–Martin

33 programs at UT–Memphis

All programs are subject to an internal program review at least once every ten years. There is also a mid-cycle review of programs after every three years. There are separate standards for evaluating undergraduate and graduate programs, but both address such issues as formal standards (e.g., core curriculum, screening and supervision of students, and course availability), as well as the qualitative standards in place to ensure a positive student experience (e.g., faculty quality, teaching and learning environment). Based on an examination of the program reviews scheduled and completed for the Chattanooga, Knoxville, and Martin campuses, it appears that all three campuses have maintained an adequate review mechanism for their academic programs. During the five academic years between 1997-98 and 2001-2002, 44 programs at UT–Chattanooga and 18 undergraduate programs at UT–Martin were scheduled for review. UT–Knoxville scheduled 40 programs for review from the 1996-97 school year through fall semester 2000. Auditors examined three completed program reviews from UT–Chattanooga; four from UT–Knoxville; and three from UT–Martin. All of these appeared to contain adequate

documentation of the review team's deliberations and recommendations for improvements, as well as areas in which the programs were judged exceptional.

Between June 1980 and June 1999, 134 academic programs were eliminated, consolidated, or placed on inactive status and 48 programs were approved or reactivated (a net decrease of 86 programs). (See Table 12.) According to university staff, the creation of new programs at system campuses has been discouraged because of resource considerations. Proposals for new programs must undergo a lengthy process, beginning with a favorable recommendation by the department, along with agreement by the college, campus, university-wide administration, and finally the UT Board of Trustees. The Tennessee Higher Education Commission (THEC) must also act favorably on recommendations for new programs.

**Table 12**  
**Academic Program Summary**  
**June 1980 – June 1999**

| <b>Campus</b>  | <b>Programs Terminated,<br/>Consolidated, or Placed on<br/>Inactive Status</b> | <b>Programs Approved or<br/>Reactivated</b> |
|----------------|--|---|
| UT–Chattanooga | 10   | 14  |
| UT–Knoxville   | 78   | 13  |
| UT–Martin      | 25   | 10  |
| UT–Memphis     | 21   | 11  |
| <b>Total</b>   | <b>134</b>   | <b>48</b>                                   |

For the 1996-97 academic year, UT–Knoxville had a net decrease of 23 individual courses and the Chattanooga and Martin campuses had a net increase of 6 courses and 5 courses, respectively. (See Table 13.) System-wide, UT added 219 courses, while eliminating 231. Between the 1994-95 and 1997-98 academic years, UT undergraduate programs eliminated a total of 988 individual courses, while adding 862 (a net decrease of 126).

**Table 13**  
**Courses Added and Eliminated**  
**1996-97 Academic Year**

| <b>Campus</b>  | <b>Courses Added</b> | <b>Courses Dropped</b> |
|----------------|----------------------|------------------------|
| UT-Chattanooga | 30                   | 24                     |
| UT-Knoxville   | 139                  | 162                    |
| UT-Martin      | 50                   | 45                     |
| <b>Total</b>   | <b>219</b>           | <b>231</b>             |



The UT campuses use various methods to determine the need for undergraduate courses. UT–Chattanooga uses data it receives from the campus Academic Affairs office on student credit hours generated and student credit hours per full-time equivalent (FTE) credit hour. The Registrar’s Office at UT–Knoxville is responsible for producing management reports for academic departments. These reports provide continuous updates of enrollment data to department heads, on a daily basis for the first ten days of a new semester and on a weekly basis thereafter. UT–Knoxville’s drop/add system also enables departments to monitor capacity, enrollment, availability, and overflow requests during each registration cycle. UT–Martin bases its anticipated course offerings on past enrollment trends, especially actual enrollment during the preceding regular semester.

Based on our review of the procedures used to determine the need for programs and classes, the UT system appears to emphasize meeting the demand for undergraduate, general education classes required by several courses of study. In order for new programs to be approved, the college and department submitting the request to expand program offerings must first demonstrate specifically the ways in which the new program will address the 16 criteria identified by THEC: institutional mission, curriculum, academic standards, evaluation, graduate programs, desegregation, student demand, employer need, program duplication, faculty support, administration/organization, library resources, facilities, support services, cooperating institutions, and the cost-benefit ratio (financial or otherwise) to the state.

## **EFFORTS TO PROVIDE TECHNOLOGICAL ADVANCES ON CAMPUSES**

The campuses in the University of Tennessee system appear to be making adequate efforts to provide technological advances to students. Also, it appears that in general, they are keeping up with their peer institutions in this regard.

According to university-wide administration staff, the universities use three primary methods to assess technology and equipment needs. First, the campuses use standing committees to assess, review, and recommend improvements. The committees may also be involved in the financial analysis of recommended changes and the evaluation of vendors. Second, departments keep campus leaders apprised of each area’s needs (and their relative priority), eventually resulting in budget proposals. And third, the campuses may establish committees to research and evaluate a solution to specific needs. A recent example was the creation of committees to assess needs associated with student information systems.

To help pay the costs for technological improvements, the Chattanooga, Knoxville, and Martin campuses, upon approval of the student bodies, have all implemented student technology fees (\$65 per semester for Martin and \$100 per semester for Chattanooga and Knoxville). UT–Knoxville conducted an assessment of what peer institutions were charging prior to determining this amount. The campuses have created committees to review proposals submitted by departments and make recommendations for how the fees will be used. However, university-wide administration management and campus administrators expressed concern that technology fee increases will not be enough to keep up with needed technology and equipment improvements.

Administrators at all campuses believe the state is not providing sufficient financial assistance to address technology needs.

### Recent Technological Advances

Auditors contacted administrators from all four UT-system campuses to determine efforts to update and maintain technological advances. System-wide, the UT campuses are currently working on a statewide agreement to acquire Internet services for students. Tennessee Network Information Infrastructure (TNII) will be the new provider for Internet access for all of higher education and the K-12 systems. Efforts being made by the individual institutions are detailed below.

University of Tennessee–Knoxville. UT–Knoxville is improving classrooms through the Innovative Technologies Collaboration, which is involved in the delivery of instruction and the education of faculty. UT–Knoxville is also active in the Southeastern University Research Association for networking and research support services. The university's goal is to upgrade at least one classroom per year by equipping it with computers and other technological advances, including audiovisual equipment. In addition, mobile units have been established in batches of six per year to serve classrooms that are not equipped. While this is being done centrally across campus, some departments such as the Law School are completely wired for Internet service.

UT–Knoxville is also becoming more involved in distance-learning courses. They currently have an on-line degree program for physicians entitled the Physician Executive Masters in Business Administration Program. Additional classes are being offered at off-campus sites including Nashville, Chattanooga, Memphis, and Martin via compressed video equipment, allowing students to interact live with instructors. The university offered 21 distance education courses during the spring 1999 term, 8 in the summer 1999 term, and 18 in the fall 1999 term.

University of Tennessee–Chattanooga. UT–Chattanooga is in the process of seeking a new on-line system for the university library. Some computer laboratories in the student center are being updated and hours have been extended. In addition, academic buildings and residence dormitories have recently been wired to provide computer and Internet capabilities. The university's goal is to eventually have computer labs in all dormitories.

University of Tennessee–Martin. UT–Martin currently has three or four classrooms that are equipped with permanent computers. Administration would like to have more classrooms with this capability, but the costs are high. To increase computer access, the university uses computers on wheels. These instructor workstations can be moved to individual classrooms, thus increasing the number of rooms that can be served. In 1994, all dorms were wired to provide all students with computer hookups.

University of Tennessee–Memphis. UT–Memphis is installing new computers and routers on campus in order to provide the ability to run bigger and better software and increase the speed of the network. The campus is also currently upgrading its computers. Each classroom on campus has computers and Internet hookups, as faculty are making greater use of the Internet in teaching.

Interactive video is being used for distance-learning classes within the UT system, with students taking classes in Nashville, Knoxville, Chattanooga, and Jackson. The School of Nursing offers a doctoral program where students can take classes on line from their homes.

With regard to medical technology, UT–Memphis focuses on functionality because of the sophistication of transplant surgery and imaging laboratory processing equipment. Administration believes the market to educate students is intense and that UT–Memphis is in competition with other medical research institutions that are acquiring this equipment. Biomedical research conducted by institutions like UT–Memphis requires very expensive equipment that has a short life, sometimes a year or less, because of changes in technology.

Although, according to management, UT–Memphis has not been able to keep up technologically as well as it would like, other institutions experience the same problems. As a response, UT–Memphis has formed scientific partnerships with other medical schools and hospitals like Vanderbilt and St. Jude’s to share equipment.

### Comparison With Peers

In the past, UT–Knoxville has conducted formal assessments of peer institutions to see what technological advances they are making. The last comparative study was conducted in 1996. The other campuses in the UT system do not conduct standardized or formal assessments comparing their technological advances and equipment inventory with that of their peer institutions. However, according to university-wide administration management and campus administrators, information is shared with peer institutions through contacts with other universities, external agencies, consultants, and professional organizations. This sharing of information provides campuses with a knowledge base to measure how their campus compares with others.

Information can also be gathered through the review of grant proposals that define proposed methodologies for conducting research projects. Because funding agencies such as the National Science Foundation and the U.S. Department of Agriculture provide funding for state-of-the-art equipment, campus faculty can determine what equipment is being purchased through these grants by other institutions. Information may also be obtained from trade shows, vendor demonstrations, and journal articles published by faculty from peer institutions (the equipment is typically described in the Materials and Methods section of the articles).

Auditors contacted three peer institutions for UT–Knoxville (University of Maryland, University of Oklahoma, and University of Texas at Austin) and three joint peers for UT–Chattanooga and UT–Martin (Appalachian State University, Morgan State University, and Southwest Oklahoma State University). In general, the peer institutions are developing and implementing the same technological advances as their UT counterparts. For example, the UT–Knoxville peers are introducing Internet access and audiovisual capabilities to most classrooms on campus. In addition, they are in the process of equipping some classrooms as computer teaching labs. All three UT–Knoxville peers offer distance learning classes in their states. All three of the

UT–Chattanooga/UT–Martin peers are in the process of upgrading technology and equipment on campus and are in the early stages of developing distance-learning classes.

Six of ten UT–Knoxville peers also charge a student technology fee, ranging from \$40 per semester at the University of Kentucky to \$120 per semester at Virginia Tech. One of the three UT–Chattanooga/UT–Martin peers interviewed (Southwest Oklahoma State University) charges a technology fee of \$3 per credit hour.

UT–Memphis has not identified a specific list of peer institutions. According to management, it is difficult to identify peers because medical research institutions tend to focus on specialized areas. For example, UT–Memphis specializes in neuron-science at the molecular level and lower. Because schools no longer emphasize broad-based research, comparisons are difficult to make.

The American Medical Association (AMA), which is responsible for accrediting medical schools, does not compare or rank universities on technology issues but has developed accreditation standards. The categories are general and primarily deal with resources, including sufficient educational and research space, faculty, teaching facilities, the library, and the presence of technology related to the medical field. The AMA focuses primarily on educational rather than medical technology. For example, the review teams assess computer facilities to determine if students have adequate access to computers, e-mail, video equipment, and other technology.

According to AMA accreditation staff, comparing institutions on technology and equipment issues is difficult because medical research institutions specialize in different areas and thus wouldn't have the same technological needs or equipment. Accreditation staff also stated that UT–Memphis is fully accredited and they were not aware of any problems with regard to technology.

## **STUDENTS' USE OF CAREER SERVICES**

Student and alumni surveys conducted by campuses indicate that the majority of students at the UT-system universities do not take advantage of career services offered. However, the students who do use the services appear to be satisfied with the quality of the services offered.

The career and student placement centers on campuses offer assistance in securing employment primarily by working with companies to recruit students on campus. In addition, services are provided in resume writing, interview skills development, and job search training to assist in finding employment. According to administration, students benefit from these services whether or not they receive a job offer through a campus interview.

Based on data compiled by UT–Knoxville, UT–Chattanooga, and UT–Martin, the number of formal recruiting visits by employers increased at the UT–Chattanooga campus from 1996-97 to 1997-98, stayed virtually the same at UT–Martin, and decreased at UT–Knoxville. However, the number of campus interviews at UT–Knoxville increased by nearly 8 percent between 1996-97

and 1997-98. The placement offices were unable to provide information as to the number of jobs actually secured as a result of campus interviews or Career Services' referrals.

UT–Knoxville, UT–Chattanooga, and UT–Martin conduct annual surveys of upper-level (junior and senior) students and alumni to solicit responses regarding specific aspects of the university and their academic experience. The surveys are alternated so that students and alumni are surveyed every two years. The surveys are conducted as part of the performance funding process and, therefore, the data is submitted to THEC for analysis.

Students and alumni were asked how frequently they made use of career services on their campuses, with a response scale ranging from “one” indicating “never” to “four” indicating “often.” The average of responses on all three campuses fell between never and seldom, indicating that the majority of students did not make use of this service. Students who used career services rated the quality of services from fair to good, on average. Overall, students were generally satisfied with their educational experiences at all three campuses, with the following average scores compiled by the Tennessee Higher Education Commission: UT–Knoxville, 3.13 (on a scale of one to four, with one denoting very dissatisfied and four very satisfied); UT–Chattanooga, 3.06; and UT–Martin, 3.16.

The UT–Knoxville Career Services office conducts annual surveys of recruiters who interviewed students on campus that year. Recruiters are asked to rate the department and students on a series of nine questions on specific performance areas. Average scores declined for eight of the nine questions between 1995-96 and 1997-98, including satisfaction with interview facilities; organization of Career Services; quality of student resumes; availability and cooperation of Career Services' staff; students' performance in interviews as well as their apparent use of available company literature, applications, and other materials; satisfaction with information provided by Career Services prior to their visit; and comparison of UT–Knoxville to other institutions as a recruitment site. Scores for only one question, whether students were appropriately prepared for interviews, saw a slight increase during this period.

According to Career Services management, in response to the declining scores the office has focused on improving the quality of interviewing facilities used by the recruiters. Recent improvements have included adding telephones and new furnishings. Management believes these improvements will not only affect how recruiters view the facilities, but how they view the students as well. Responses for 1998-99 showed improvement in seven of the nine questions, including the question comparing UT–Knoxville to other universities.

Other changes for Career Services include implementation of Web resume writer software in 1997-98. Funded by the student technology fee, this software permits students to prepare on-line resumes and enter them electronically into Career Services' database. Students can also access this Web site to identify employers recruiting on campus, submit resumes to employers, and schedule interviews.

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## FINDING AND RECOMMENDATION

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### 1. The UT system needs to continue minority recruitment efforts

#### Finding

As part of the 1984 consent decree in *Geier v. Alexander*, all public universities and colleges in Tennessee are pledged to meet certain goals for enrollment and hiring of minorities, principally African-Americans, by the 2000-2001 academic year. The University of Tennessee has not yet attained its goals for enrolling undergraduate minority students at UT–Knoxville and UT–Martin and has not maintained its goal for the Health Science Center at Memphis. In addition, a review of campus efforts to recruit minority staff indicates that although UT–Chattanooga has exceeded its goals for hiring administrators, faculty, and professionals, UT–Knoxville has met its goals for faculty only, and UT–Martin has only met its goal for the hiring of professionals. The UT campuses’ problems with enrolling and retaining qualified African-American students, faculty, administrators, and professional staff may have a negative effect on the university’s ability to serve the educational needs of all Tennesseans.

#### The Geier Lawsuit

In 1984, the Tennessee Board of Regents and the University of Tennessee Board of Trustees entered into a consent decree, or agreement of settlement, in a discrimination lawsuit (originally filed in 1968) which alleged that the State of Tennessee had attempted to perpetuate a “dual system” of higher education separating African-Americans and whites in the state’s public institutions of higher learning.

According to the terms of the settlement, UT and the Board of Regents would establish enrollment, employment, and other desegregation goals at all state universities and colleges. The ultimate goal of the consent decree is “to eliminate all vestiges of Tennessee’s once segregated system of higher education” and create a “unitary, desegregated higher education system.” Several stipulations require merely a good faith effort by the university systems, while others require a specific percentage of African-American students and faculty before compliance with the consent decree can be achieved. The court ordered Tennessee State University in Nashville to increase its white enrollment to 50 percent; minority enrollment and hiring goals were set later for the state’s other universities by a special Desegregation Monitoring Committee. The committee, which is composed of representatives from UT, the Board of Regents, and the Tennessee Higher Education Commission, was identified as the entity responsible for reporting to the court. The state assured the plaintiffs that the implementation of the settlement would not decrease access to public higher education in Tennessee by qualified African-American students, nor would the state decrease the African-American presence in administrative and faculty positions within the two statewide systems.

## Desegregation Goals

At UT campuses, 33 specific desegregation goals have been established for students, faculty, administrators, and professional staff. These goals are effective for the 2000-01 academic year and are revised every five years.

Hiring. Based on fall 1998 data, UT–Chattanooga and UT–Knoxville exceeded their goals for faculty hiring; UT–Martin and UT–Memphis have not yet met their goals. (See Table 14.) UT–Chattanooga and UT–Memphis have both exceeded their goals for hiring minority administrators, while UT–Knoxville has not yet met its goal and UT–Martin is far short of its goal. All campuses, with the exception of UT–Knoxville, have exceeded their goals for hiring minority professionals.

**Table 14**  
**UT-System Minority Hiring Goals and Status as of Fall 1998**

|                | <b>Faculty</b> |                | <b>Administrators</b> |                | <b>Professionals</b> |                |
|----------------|----------------|----------------|-----------------------|----------------|----------------------|----------------|
|                | <u>Goal</u>    | <u>Actual*</u> | <u>Goal</u>           | <u>Actual*</u> | <u>Goal</u>          | <u>Actual*</u> |
| UT–Chattanooga | 4.3%           | 5.1%           | 8.6%                  | 12.2%          | 8.7%                 | 10.8%          |
| UT–Martin      | 6.2%           | 4.2%           | 12.2%                 | 2.9%           | 8.2%                 | 21.0%          |
| UT–Memphis     | 5.6%           | 4.6%           | 9.7%                  | 12.0%          | 10.4%                | 20.7%          |
| UT–Knoxville   | 2.7%           | 3.3%           | 10.0%                 | 8.1%           | 7.8%                 | 5.5%           |

\* Percent of African-Americans in each category.

Student Enrollment. The goals for enrolling African-American undergraduate students at the Knoxville, Martin, and Memphis campuses have not yet been met. Only UT–Chattanooga has been successful in meeting its target African-American enrollment rates for undergraduates. (See Table 15.) UT officials attributed the decrease in African-American undergraduates at Memphis to the termination of the undergraduate nursing program at the Health Science Center. Staff attributed the Martin campus’s failure to meet its goal to an overall decrease in enrollment at UT–Martin. Concerning UT–Knoxville’s enrollment percentages, university staff and administrators conceded that the Knoxville campus has experienced difficulty in attracting African-American undergraduates. They stated that recruiters have made multiple visits to Memphis and Nashville in an attempt to increase African-American enrollment at the Knoxville campus. Full-time recruiters have been hired for both Memphis and Nashville. However, UT officials added that recruiting efforts in the Memphis and Nashville areas must contend with the difficulty of attracting students to an institution three to seven hours away from their homes. They also mentioned that African-Americans comprise a far smaller share of the population in Knoxville and the surrounding area than in Memphis/Shelby County or in Nashville/Davidson County, a factor that may discourage many African-American students from pursuing their college education at UT–Knoxville.

The UT campuses were much more successful in meeting their goals for graduate students. As of fall 1998, all campuses had met their minority enrollment goals, as had the Colleges of Medicine and Pharmacy at UT–Memphis and the College of Law at UT–Knoxville. (See Table 15.) Only the College of Dentistry (UT–Memphis) and the College of Veterinary Medicine (UT–Knoxville) had not yet met their goals.

**Table 15**  
**UT-System Minority Enrollment Goals and Status as of Fall 1998**

|                                | <b>Minority Enrollment<br/>Goal (%)</b> | <b>Actual Minority<br/>Enrollment (%)</b> |
|--------------------------------|---|---|
| <b>Undergraduate</b>           |   |   |
| UT–Chattanooga                 | 15.7%                                   | 16.2%                                     |
| UT–Martin                      | 18.3%                                   | 14.2%                                     |
| UT–Memphis                     | 17.9%                                   | 6.2%                                      |
| UT–Knoxville                   | 11.0%                                   | 5.5%                                      |
| <b>Graduate</b>                |   |   |
| UT–Chattanooga                 | 6.6%                                    | 8.1%                                      |
| UT–Martin                      | 8.6%                                    | 9.0%                                      |
| UT–Memphis                     | 9.0%                                    | 9.9%                                      |
| College of Medicine            | 8.8%                                    | 14.7%                                     |
| College of Pharmacy            | 9.7%                                    | 13.7%                                     |
| College of Dentistry           | 8.5%                                    | 6.2%                                      |
| UT–Knoxville                   | 4.7%                                    | 5.2%                                      |
| College of Law                 | 7.6%                                    | 9.1%                                      |
| College of Veterinary Medicine | 8.2%                                    | 1.2%                                      |

#### Comments by Students

Auditors contacted affirmative action and minority student offices at the Knoxville, Chattanooga, and Martin campuses to identify African-American students who serve in leadership positions on those campuses. Those students were then surveyed to determine whether they have experienced any barriers to enrollment. Only two of the ten student leaders who responded to the survey believe there are barriers; those students further stated that the barriers are primarily financial in nature and cited the difficulties minority students face in obtaining scholarships. (In its



1995-1999 five-year plans, the UT system has committed itself to “expand mentoring programs with special attention to the needs of minority . . . students” and to provide financial support and other incentives to attract more African-American faculty and staff. The number of undergraduate scholarships reserved for African-American students increased from 833 in 1996-97 to 953 in 1997-98; the scholarship amounts increased from \$1,466,521, to \$1,705,668. During school year 1997-98, a total of 321 African-American graduate students benefited from approximately \$3.3 million in scholarship awards at UT-system campuses.)

Several of the student leaders surveyed did question UT-Knoxville’s commitment to actively encouraging enrollment of African-American students. In response, university officials noted that (1) the number of African-American undergraduates at UT-Knoxville increased by 26 percent (from 864 to 1,087) between 1996 and 1998 and (2) the minority students who do enroll at the university are graduating at a rate higher than minority students at other public universities in Tennessee. For academic year 1997-98, the graduation rate for undergraduate African-American students at UT-Knoxville was 45 percent, compared to a rate of 42 percent at UT-Chattanooga and 30 percent at UT-Martin. The highest graduation rate for undergraduate African-American students for a Board of Regents university was 39 percent for both Austin Peay and Tennessee State Universities.

### **Recommendation**

The University of Tennessee system, particularly the Knoxville and Memphis campuses, should increase efforts to expand minority enrollment by recruiting qualified African-American students, helping those students obtain financial support if needed, and providing programs (e.g., mentoring programs) to help at-risk students succeed. All campuses should increase their efforts to hire qualified minorities, particularly for faculty and administrative positions.

### **Management’s Comment**

We concur. The university is currently working with Mr. Carlos Gonzales, the court-appointed mediator of the longstanding Geier desegregation case. We have already spent considerable time and effort to develop strategies to increase the African-American presence (students and staff) on campus, the Geier case notwithstanding. Enhanced scholarships, opportunity hiring, and a variety of retention tactics all are being developed. In addition, the university is in the process of contracting with a nationally known firm to assist us in the development of recruitment strategies for attracting minority students. Additional African-American Admissions Counselors have been hired to help recruit minority students from the Memphis and Nashville areas.

A new position, Diversity and Equity Administrator, has been created to strengthen recruitment efforts of faculty and staff. This position reports directly to the President’s Office.

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## RECOMMENDATION

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### ADMINISTRATIVE

The University of Tennessee should address the following area to improve the effectiveness of its operations.

1. The University of Tennessee system, particularly the Knoxville and Memphis campuses, should increase efforts to expand minority enrollment by recruiting qualified African-American students, helping those students obtain financial support if needed, and providing programs (e.g., mentoring programs) to help at-risk students succeed. All campuses should increase their efforts to hire qualified minorities, particularly for faculty and administrative positions.